From: Randy Peterson

To: Norm Henderson, Denny Fenn, Jeff Lovich, Steve Gloss, Ted Melis

Date: December 16, 2003 11:26 AM

Subject: Draft budget process and summary spreadsheets

Date: Dec. 16, 2003 11:26 AM

GCMRC management and TWG chair,

Attached is the start of a budget process agreement (to be followed in the future by more extensive process discussion and timeline), and a pair of budget summary spreadsheets to work on a 2-year budget cycle. The pair of spreadsheets are assumed to be used in the month noted in the spreadsheet footer, January of even- or odd-numbered years (print out the sheets on legal paper). Note that the spreadsheets don't contain meaningful numbers, so your review of these should focus on the way the columns and rows interact and how the rows are blocked together into core monitoring, research/experimental, and management actions.

Note the consistent numbering scheme to be used in both spreadsheets and work plans. These sheets intend to address the need to identify carryover and actual expenditures, and to group our efforts into categories important to AMP stakeholders. We propose this as a long-term format. Since the TWG is already sufficiently confused and troubled by the 2005 budget discussions, it probably makes sense to continue to use the current sheets for the 2005 budget, and implement this format this next summer/fall.

Please let us know of any concerns about these documents by COB Thursday Dec. 18 - we plan on distributing them to the budget ad hoc group on Friday morning Dec 19 to keep moving budget progress forward.

After initial review of the product/process discussion, we'll add to that document with additional milestones, timelines and process.

From: Jeffrey Lovich To: Randall Peterson

Date: Fri, Jan 2, 2004 10:45 AM

Subject: Re: Draft budget process and summary spreadsheets

Randy,

The holiday season and an email backlog conspired to make my response this late. Helen has some comments on the grouping of some of the projects in your draft spreadsheets and she'll respond on that issue via separate email. The process sounds reasonable and we look forward to additional clarification on how to make this process more efficient. The two year cycle is something that we advocated so that is desirable from our perspective. One thing I would like to see added is a link to a spreadsheet and graph that gives a budget summary to show in real time how changes to one part of the budget affect other parts, especially the subtotals. I've received comments from other TWG members that such an interactive budget would be very useful as we go through detailed discussions in the future. I'm not an Excel guru so we should have discussion on that topic so that someone with greater agility in the program can craft such a tool.

From: Helen Fairley

To: Randall Peterson, Dennis Kubly

Date: 1/2/2004 1:08:37 PM

Subject: Re: Fwd: Draft budget process and summary spreadsheets

Having just returned from training and vacation, this is my first opportunity to review your proposed budget format. I have a few observations to offer for group consideration before this becomes final:

- 1) As we discussed at the last TWG budget ad hoc meeting (and according to information provided by Nancy Coulam when I first started this job), the tribal co-op agreements -- which I understand are currently still in limbo for FY04 and beyond-- funded the tribes for consultation purposes, not for monitoring purposes. The funding included logistical costs for one trip per tribe. Some of the tribes (e.g., S. Paiutes) chose to monitor archaeological sites and other resources during those trips, but that was not the OFFICIAL purpose of those trips. Other tribes (e.g. Navajo) adhere to the stated purpose of the co-op agreement and use their trips strictly for consulting with tribal officials and lawyers about AMP and CRE resource issues. In any case, the tribal trip funding has nothing to do with terrestrial ecosystem monitoring per se and therefore, the trip funds should not have been moved under the TEM category. Funding for tribal trips belongs under the administrative section of the budget, where it has been all along, at least until such time as DOI and the tribes re-negotiate the terms of those co-op agreements.
- 2) In the FY05 workplan, GCMRC deliberately reorganized the old format in order to start moving away from categorizing projects as strictly physical, biological, and sociocultural, in recognition of the integrated nature of the CR ecosystem and the fact that many projects address multiple program concerns. The new format moves us back towards the old way of thinking. Also, we made a deliberate point of separating out sociocultural projects from unrelated "other" projects, but in the proposed budget format, they are lumped again. For presumably obvious reasons, I oppose having a catch- all category called "sociocultural and other".
- 3) It was my understanding from discussions with Ted that it makes more sense to discuss experimental actions in tandem with the core monitoring projects (to which many experimental activities are tied), rather than group the diverse experimental actions together into a separate category. This is because many of the activities identified under "experimental actions" are extensions of and build upon ongoing core monitoring activities, and in some cases, the two can not easily be separated. Ted has been out of the office the whole time I have been gone (he will be back Jan. 5) so he hasn't had a chance to review this proposed budget format. He may have more to say about this issue.
- 4) I question the rationale for lumping the Humpback Chub actions into their own category and separately categorizing other management actions apart from research/ experimental activities. Although Humpback Chub activities are clearly driven by management needs, many of the currently planned HBC activities involve doing research that will benefit our understanding of the ecosystem in a broader sense, and other management actions in the future may be de facto research projects in their own right. In fact, I would argue that just about everything we do in this program is driven by management objectives one way or another, so how do we draw this line? If we decide to stick with these budget categories, we will need to develop explicit definitions for distinguishing management actions from pure (?) research, etc.
- 5) I'm not clear how this new format is showing carry over amounts, either with or without the sediment trigger. Do we need another column or two?

From: John_Ritenour To: Dennis Kubly

Date: Fri, Jan 16, 2004 9:49 AM

Subject: Re: BAHG notes from the last series of meetings

Dennis,

Please feel free to share these with whomever you feel appropriate. I don't have a complete list of all the BAHG emails - when you send this out if I am your mailing list I will use that list in the future.

I thought I'd capture a few notes regarding the budget process. You did very well in all these budget discussions of the last three months- it was quit a challenge.

I think it would help to have a pure process BAHG meeting that did not include discussion of the budget content. With that possible I had the following thoughts about issues or items we could address:

How can we display past years' budgets, actual expenditures in a past year, and carry-over funds. I think all carry-over money should be displayed in the budget process.

Should GCMRC actually program known carry-over funds in the first draft budget (show their recommended use of carry-over). Or, should it just be identified and then let the BAHG or TWG decide what unfunded projects should receive priority consideration for the carry-over funds. We need to define the process to do the following: How do we approve and show the approval for carryover money to be spent on the same line item or budget item in the following new budget year. How do we show reprogramming for carry-over funds that BAHG or TWG does not approve to continue for a project or that are no longer needed for the same line item or budget item in the following budget year.

If BAHG, TWG, and AMWG actually get on a budgeting cycle so that we approve the 06 budget sometime during FY05 then carry-over funds may not be known at the time of the final 06 approval so we need a process to address known carry-over funds that become available at different times in the budget cycle. We won't necessarily know there are 05 carryover funds until the fall of 2005 as FY06 begins and we need away to add 05 carryover funds to the 06 budget if that is the BAHG's desired plan - we might want to say any funds remain until the next outyear budget discussion (in this case it would be addressed in the 07 budget discussions).

The spread sheet needs to show other agency funds in a separate column, not in the AMP column.

Do we have a budget cycle time line, i.e., draft FY06 due to ad hoc/TWG on such-and-such a date, ad hoc review completed by, TWG review started, TWG approval date, AMWG approval, etc.

The BAHG should establish some criteria to determine what work should be in-house or out-house (or both). Then when it is shown on the workplans we know how it was determined. As an aside, are USGS staff other than GCMRC considered in-house or out-house?

How can we address multi-year needs in a single year budget cycle? A project approved in FY05 may be committing the same or additional dollars for 06 and beyond. Should we approve all years including out years' funding? An example would be research which usually needs three years to accomplish (pre-work, compliance, etc/field data gathering/ report writing). Do we provide all three years' funding in the first year's budget request or spread it out over each of the next three years.

All budget presentations should follow a similiar format. This would include one each for written wor plans and presentations by GCMRC and BOR staff.

What authority, if any, does GCMRC have to mix and match funds.

And finally, I would like a summary of entry lines for all the projects described in the workplans. The BAHG should determine what needs to be captured. As a minimum I would like to see a summary of all Outsourced Science/Labor entries, as well as Logistics, Operations, and GCMRC Salary. Within the Administrative & Management and Technical Support Services catagories we may need to see a breakout of equipment, supplies & materials, awards, travel, training, etc.

Again, you did a very good job of seeing the FY05 budget through the process.

Glen Canyon Dam Adaptive Management Program Budget Products, Process and Timeline TWG Budget Ad Hoc Group December 11, 2003

Budget Products

Key concepts

- Budgets will be formulated on a 2-year cycle to reduce the amount of AMP member and Reclamation/GCMRC staff time that budgeting is currently consuming. Detailed budget discussions will occur at the end of even-numbered calendar years, with approval by the AMWG during the January meeting of odd-numbered years. Budget discussions the following year will be limited to reporting on expenditures and program accomplishment, and to planning future initiatives
- Budget document format will be agreed to by the AMWG and not changed unless directed by the AMWG
- Budget documents will be fully integrated with proposed experimental actions and may contain alternative budget formulations that respond to triggering events such as sediment inputs or dam release probabilities
- Budget documents will include past spending histories, future projections, and funding source breakdowns. Budget graphics will illustrate various breakdowns between basic program areas.
- Budget proposals (particularly new initiatives) will be distributed to the Budget Ad Hoc Group, TWG and AMWG sufficiently in advance to allow proper review of documents prior to consideration by each group. A minimum of 2 weeks review time is required for each subgroup and 1 month for the AMWG.

Budget summary spreadsheet and workplans

- Summary spreadsheet and workplans will be fully coordinated between Reclamation and GCMRC and will be sent out as a complete package, not in pieces
- Numbering, descriptions and costs will be consistent between summary spreadsheet and workplans
- Summary spreadsheet will be broken down into sections describing:
 - o Administration and management costs (both Reclamation, GCMRC and tribal)
 - o Programmatic Agreement and humpback chub actions (in the future, these might be incorporated into other basic categories shown immediately below)
 - o Core monitoring (terrestrial, integrated, aquatic, socio-cultural)
 - o Research and Experimental actions (terrestrial, integrated, aquatic, socio-cultural)
 - o Management actions
 - o USGS overhead costs
 - o Income sources
- Workplans will contain enough detail to allow the TWG/AMWG to determine if the proposed project will be able to answer the general and specific questions asked by these groups
- Workplans will contain a 5-year funding history (forward-looking through the budget being proposed and backward-looking for the remainder). GCMRC staff costs and logistics will be appropriately included in specific projects.

An example of the budget summary spreadsheet (absent meaningful budget numbers) is included as Attachment A for both even- and odd-numbered years in the 2-year budget cycle.

	В	С	D	E	F	G	Н	I
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source
2	ADM	INISTRATION AND MANAGEMENT						
3		Reclamation Administration						
	Α	Adaptive Management Work Group						
5	A.1	Personnel Costs			151,000	155,530	1 122 23111	Assumes level funding in FY06 with indexing
6	A.2	AMWG Member Travel Reimbursement			13,000	13,390	13,390	П
7	A.3	Reclamation Travel			18,000	15,540	15,540	"
	A.4	Facilitation Contract			21,000	21,000		11
9	A.5	Other			9,000	7,000	7,000	II .
10		Adaptive Management Work Group Subtotal	0	0	212,000	212,460	212,460	
	В	Technical Work Group						
12	B.1	Personnel Costs			69,000	71,070		II .
	B.2	TWG Member Travel Reimbursement			15,000	15,450		
	B.3	Reclamation Travel			17,000	15,510		II .
	B.4	TWG Chair Reimbursement			21,000	21,630	21,630	11
16	B.5	Other			2,000	2,000	2,000	II .
17		Technical Work Group Subtotal	0	0	124,000	125,660	125,660	
18	С	Other Reclamation Costs						
	C.1	Compliance Documents			26,000	26,780		
20	C.2	Contract Administration			25,000	25,750	25,750	II .
21		Other Reclamation Costs Subtotal	0	0	51,000	52,530	52,530	
22		Reclamation Administration Subtotal	0	0	387,000	390,650	390,650	
23								
24		USGS Administration						
25	D	Administrative and Management						numbers as per GCMRC integrated
26	D.1	Administrative Operations ⁽¹⁾			620,000	638,600	638,600	FY06 funding remains level with indexing
27	D.2	Program Planning & Management			274,000	282,220	/0///	FY06 funding remains level with indexing

	В	С	D	Е	F	G	Н	I
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source
28	D.3	AMWG, TWG			45,000	46,350	เ 4ก ราบ	FY06 funding remains level with indexing
29	D.4	Independent Reviews			222,000	222,000	225,000	lindevind
30	D.5	Public Outreach			85,000	50,000	50,000	FY06 funding remains level with indexing
31		Adminsistrative and Management Subtotal	0	0	1,246,000	1,239,170	1,242,170	
32	Е	Technical Support Services						numbers as per GCMRC integrated
33	E.1	Geographic Information System			160,000	160,000		FY06 support additional DASA to achieve integrated science objectives
34	E.2	Data Base Management System			128,000	128,000	250,000	needs for outsourced development
35	E.3	Library			79,000	99,000	286,000	FY06 supports initiatives for achieving new Information Office objectives
36	E.4	Survey Operations			126,000	126,000	1 726 (101)	FY06 maintains funding at FY04 level with indexing
37	E.5	Systems Administration			242,000	242,000	286,000	achieving new Information Office
38	E.6	Airborne Remote Sensing - Core Monitoring			163,000	200,000	290,000	needs for achieving Core
		Web page and product development			0	100,000	122,000	implementing new initiatives for
40	E.8	Logistics Operations						\$965,000 & \$1,500,000 respectively,
41		Technical Support Services Subtotal	0		,		, ,	support Core-Monitoring &
42		USGS Administration Subtotal	0	0	2,144,000	2,294,170	2,912,170	support all ongoing AMP-directed
43								
44		Tribal Consultation						
45		Cooperative Agreements with Tribes		Т				[··
46		Hopi Tribe			80,000			
		Hualapai Tribe			80,000	,	82,400	
48	F.3	Navajo Nation			80,000	82,400	82,400	"

	В	С	D	Е	F	G	Н	I
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source
49	F.4	Pueblo of Zuni			80,000	82,400		"
50	F.5	Southern Paiute			80,000	82,400	82,400	11
51		Tribal Consultation Subtotal	0	0	400,000	412,000	412,000	
52								
53	TOTA	AL ADMINISTRATION AND MANAGEMENT	0	0	2,931,000	3,096,820	3,714,820	
54								
55	PRO	GRAMMATIC AGREEMENT						
56	G.1	Reclamation Administration			43,000	51,500	51,500	н
57	G.2	Database and GIS			0	0	0	11
58	G.3	NPS-GRCA Monitoring Costs			200,000	206,000	206,000	II
59	G.4	NPS-GLCA Monitoring Costs			28,000	28,840	28,840	"
60		NN & GLCA Treatment Plan and Implementation			100,000	100,000	100,000	11
61		Whole Canyon Treatment Plan and Implementation			0	250,000	250,000	11
62		Zuni Conservation Program Mitigation			0	10,000	10,000	II .
63	G.8	TCP GIS Documentation			0	150,000	150,000	II .
64	TOTA	AL PROGRAMMATIC AGREEMENT			371,000	796,340	796,340	
65								Oolamii 71 gives new project
66	HUM	PBACK CHUB PLAN ACTIONS						numbers as per GCMRC integrated
67	H.1	Willow Beach Genetics Assessment			0	0	0	
68	H.2	Genetics Refugium			40,000	100,000	100,000	indexing
69	H.3	HBC Genetics Evaluation			0	0		
70	H.4	Feasibility of HBC Augmentation			0	0		
71	H.5	HBC Translocation to Tributaries			25,000	50,000	25,000	somewhat reduced level
72	H.6	Temperature Control Device (TCD)			200,000	50,000	200,000	monitoring & research toward
73	H.7	Dam Operations Experiment			50,000	50,000		ongoing planning of experimental
	H.8	Sediment, Turbidity Augmentation			50,000	0		studies are completed in FY05
75	H.9	Scientific, Recreation Impact Assessment			11,000	30,000	0	are completed in FY05

	В	С	D	Е	F	G	Н	
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source
76	H.10	Bright Angel Non-native Fish Removal			167,000	167,000	167,000	activity at the FY04-05 levels
77	H.11	Tributary Non-native Fish Survey, Removal			0	0	0	Funded through NPS (CCI) funds
78	H.12	LCR Confluence NNF Mechanical Removal			0	0	0	project A.17 (see above)
79	H.13	Fish Monitoring below Diamond Creek			50,000	25,000	25,000	\$10,000 provided from outside
80	H.14	Invasive Species Management Plan			0	0	0	below)
81	H.15	Monitoring Parasites and Diseases			50,000	55,000	55,000	indexing
82	H.16	Development of a LCR Management Plan			0	100,000	0	completed in FY05
83	H.17	Concurrent LCR, Mainstem HBC Pop Est.			250,000	200,000	200,000	activity is implemented as described
84	H.188	AMWG Outreach Program			0	0	0	above)
85	H.19	Genetics Management Plan			0	0	0	completed in FY05 (funds in FY04
		LCR Spill Prevention Plan			0	0	0	below)
		LCR Pollution Control Plan			0	0	0	below)
88	TOTA	AL HUMPBACK CHUB PLAN ACTIONS	0	0	893,000	827,000		initiatives
89								
90	CORI	E MONITORING PROGRAM						
91	I	Terrestrial Ecosystem Activities						numbers as per GCMRC integrated
	I.1	Torrostrial Essaystom Core Manitaring			505,000	170,000		FY06 proposes restoration of this
92	1. 1	Terrestrial Ecosystem - Core Monitoring			505,000	<u> </u>		core-monitoring element; also, see
		Hopi Tribe Ecosystem Monitoring/Outreach			0	15,000	15,000	П
94		Hualapai Tribe Ecosystem Monitoring/Outreach			0	15,000	15,000	"
		Navajo Nation Ecosystem Monitoring/Outreach			0	15,000	15,000	"
		Pueblo of Zuni Ecosystem Monitoring/Outreach			0	15,000	15,000	II .
97	1.6	Southern Paiute Ecosystem Monitoring/Outreach			0	15,000	15,000	
								Combined FY05 elements
	1.7	Terr. Eco. Mon. (Tribal Involvement)				80,000		=\$250,000, with FY06 elements =
98								\$480,000
	1.8	Kanab Ambersnail - Core Monitoring			79,000	79,000		Includes additional support for staff
99					-,-,-	-,	113,000	to administer this project

	В	С	D	Е	F	G	Н	I
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source
100		Terrestrial Ecosystem Activities Subtotal	0	0	584,000	404,000	668,000	recommended to support Core-
101	J	Aquatic Ecosystem Activities						numbers as per GCMRC integrated
102	J.1	Aquatic Foodbase Core Monitoring			248,000	315,000		FY06 funding remains level with indexing
103	J.2	Status & Trends of DS Fish - Core Monitoring			870,000	820,000	870,000	
104	J.3	Status & Trends LF Trout - Core Monitoring			161,000	111,000		FY06 budget restores project to FY04 level of support
105		IQWP - DS - Core Monitoring			179,000	200,000		FY06 funding increase to offset additional outsource and operations costs
106	J.5	IQWP - Lake Powell			210,000	210,000	210,000	FY06 funding remains level with indexing
107		Aquatic Ecosystem Activities Subtotal	0	0	1,668,000	1,656,000	1,783,000	to support both Core-Monitoring &
108	K	Integrated Activities						numbers as per GCMRC integrated
109		Fine-Sediment Storage - Core Monitoring			459,000	250,000	•	level for sand-storage Core
110		Streamflow & SS Transport - Core Monitoring			505,000	300,000		achieve Core Monitoring & Sed.
111	K.3	Coarse-Grained Inputs - Core Monitoring			135,000	0	,	achieve Core Monitoring & Sed.
112		Integrated Activities Subtotal	0	0	1,099,000	550,000	1,290,000	support Core-Monitoring &
113		Sociocultural & Other	T					numbers as per GCMRC integrated
114		Evaluation & Plan for Cultural - Core Monitoring			0	40,000	,	achieving Core-Monitoring
115		Implementation of Recreation PEP reccs.			0	40,000	,	recommendations from the FY05
116	L.3	Implementation of Socioeconomic PEP reccs.			0	40,000	,	recommendations from the FY05
117		Sociocultural & Other Subtotal			0	120,000	765,000	support Core-Monitoring &
118		AL CORE MONITORING	0	0	3,351,000	2,730,000	4,506,000	support all ongoing AMP science
119								
		EARCH AND EXPERIMENTAL ACTIONS						
121	M	Terrestrial Ecosystem Activities						numbers as per GCMRC integrated

	В	С	D	Е	F	G	Н	1
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source
122	M.1	New Research in Terrestrial Ecosystems			0	0	0	New initiative are abandoned for lack of funding
123	M.2	Mapping Holocene Deposits			0	0		Project permanantly eliminated
124	M.3	Habitat Map & Inventory			48,000	0		Project is resumed at fullly funded level in FY06
		Cultural Data Base Plan			0	0		Project remains unfunded
		Kanab Ambersnail Taxonomy (AMP)			0	25,000		Project completed in FY05
		Kanab Ambersnail Taxonomy (USGS Appro)			88,000	88,000		Project completed in FY05
	M.7	Exp - Kanab Ambersnail Population			10,000	10,000		high-flow treatments at Vaseys only
129		Terrestrial Ecosystem Activities Subtotal	0	0	146,000	123,000	70,000	recommended to support Core-
130		Aquatic Ecosystem Activities						numbers as per GCMRC integrated
131	N.1	Native & Non-Native Species			0	0	0	Research remains unfunded
132	N.2	Captive Breeding Program			0	0	0	Covered under HBC new initiative "Genetics Refugium" (see project A.19)
133	N.3	Population Genetics - HBC			0	0	0	Project completed in FY03
134	N.4	Exp - Primary Productivity, Carbon Flux			59,000	0	65,000	support for high-flow tests
135	N.5	Exp - Temperatures and Habitat Use Monitoring			200,000	150,000	150,000	treatments (funded by USBR from
136	N.6	Exp - Foodbase Impacts of EHF Flows (high-flow impacts)			50,000	0	50,000	research under high-flow test
137	N.7	Exp - Monitoring of Rainbow Trout Adult			0	0	0	FY03
138	N.8	Exp - Distribution of Spawning Redds			50,000	0	140,000	Project # A.15; Phase I completed in
139	N.9	Exp - Determination of the Suppression Mechanism			125,000	0	N/A	Canyon, recommendation depends
140	N.10	Exp - Food Base Impacts of Fluctuating Flows			60,000	0		recommends ROD operations in
141	N.11	Exp - Mechanical Removal of Non-native Fish			586,000	586,000	750,000	increased costs for contracting &
142	N.12	Exp - Rainbow Trout Diet Analysis			25,000	0		projects 14 & 15 into Project # A.18
143	N.13	Exp - Predation of Native Fishes (Humpback Chub)			25,000	0		projects 14 & 15 into Project # A.18
144		Aquatic Ecosystem Activities Subtotal	0	0	1,180,000	736,000		to support both Core-Monitoring &
145	0	Integrated Activities					-	numbers as per GCMRC integrated
		Sediment Transport Modeling			231,000	0	0	verification may occur in FY06 under

	В	С	D	Е	F	G	Н	Ι
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source
								FY06 funding is level at FY05 with
	0.2	Control Network			86,000	150,000		indexing; new inititiatives completed
147							150,000	in FY06
148		Channel Mapping			0	0		FY06 completes Channel Mapping & Core Monitoring objectives
149		Advanced Modeling of Coarse Grained			0	0		Project was completed in FY03
		Recreation Effects			0	0	0	Project remains unfunded
151	0.6	Exp - Mass Balance of Fine Sediment			420,000	0	200,000	Component of mass balance
152	O.7	Exp - FIST			500,000	750,000	500,000	high-flow tests
153	8.O	Exp - Modeling EHF Sandbar Response			62,000	0	65,000	model verification under high-flow
154	O.9	Exp - Coarse Sediment and Conceptual Modeling			49,000	0	50,000	grained reworking under high-flow
155	O.10	Exp - Sediment Deposition in Arroyos			25,000	0	0	covered under FIST project (A.3,
156		Integrated Activities Subtotal	0	0	1,373,000	900,000	1,484,000	support Core-Monitoring &
157	Р	Sociocultural & Other						numbers as per GCMRC integrated
158	P.1	Unsolicited Proposals			0	0		Unsolicited proposals remain unfunded
159	P.2	AMWG, TWG Requests			0	0	50,000	the "special" request needs for
160		Tribal Outreach Workshop			45,000	0	0	Project completed in FY04
161		Cultural Synthesis & Data Report			0	0		This project remains unfunded
		Cultural Affiliation Study			0	0		This project remains unfunded
163	P.6	APE Study			25,000	0		This project is completed in FY04
164	P.7	1st Yr Geomorph. Model, Process Study			0	135,000		FY06 continues this new research initiative through its second year
165	P.8	Comprehensive Inventory of Campsites			0	0		recommendations from the FY05
166	P.9	Exp - Impacts to Concessionaires, Anglers			0	0	20,000	will be implemented (competitive
167	P.10	Exp - Changes in Camping Beaches			25,000	0		covered under FIST project (A.3,
168	P.11	Exp - Administrative Support			5,000	5,000		of experimental flow treatment
169	P.12	Exp - Technical Support - Computer			21,000	21,000		experimental flow treatment

	В	С	D	Е	F	G	Н	I			
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source			
170	P.13	Exp - Technical Support - Survey Equipment			32,000	32,000		support of experimental flow			
171		Sociocultural & Other Subtotal	0	0	153,000	193,000	500,000	support Core-Monitoring &			
172	TOTA	AL RESEARCH AND EXPERIMENTAL ACTIONS	0	0	2,852,000	1,952,000	3,259,000	support all ongoing AMP science			
173											
174	74 MANAGEMENT ACTIONS										
175		Terrestrial Ecosystem Activities						numbers as per GCMRC integrated			
176		Aquatic Ecosystem Activities						numbers as per GCMRC integrated			
177		Integrated Activities						numbers as per GCMRC integrated			
178	T	Sociocultural & Other		T	1		-	numbers as per GCMRC integrated			
179	TOTA	AL MANAGEMENT ACTIONS	0	0	0	0	0				
180											
181	USG	S INDIRECT COSTS									
182		USGS Indirect (Bureau Share 11%) (2)			363,000	363,000	· ·	See note #2			
183		USGS Indirect (Cost Center Share 4%)			132,000	132,000	132,000	FY06 assumes level funding with indexing			
184		USGS Indirect (Bur. Special Rate 3%)			58,000	58,000	56,000	FY06 assumes level funding with indexing			
185		USGS Indirect (Special CC Rate 3%)			58,000	58,000	58,000	FY06 assumes level funding with indexing			
186		USGS Indirect on Appropriations			126,000	70,450	/() 45()	FY06 assumes level funding with indexing			
187	TOTA	AL USGS INDIRECT COSTS	0	0	737,000	681,450	681,450				
188											
189	TOT	AL ADAPTIVE MANAGEMENT PROGRAM COSTS	0	0	11,135,000	10,083,610	13,779,610				
190											
191	AVAILABLE FUNDS										

	В	С	D	Е	F	G	Н	I
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source
192		USBR & USGS Power Revenues under cap			8,672,600	8,932,800		See note #1
193		Carry Over			0	0		TBD
194		USGS Appropriations (3)			500,000	,		See note #3
195		USBR Appropriations (4)			320,000	320,000		See note #4
196		NPS Funds ⁽⁵⁾			167,000	167,000		See note #5
197		NPS Appropriations (3)			95,000	95,000		See note #3
198		FWS Appropriations (3)			95,000	95,000		See note #3
199		BIA Appropriations (3)			95,000	95,000		See note #3
200		BOR Operations & Maintenance (IQWP)			210,000	210,000		
		AL AVAILABLE FUNDS	0	0	10,154,600	10,414,800		
202	TOT	AL REQUESTED APPROPRIATIONS/OTHER FUNDS	0	0	1,482,000	1,482,000	0	
203	AVA	LABLE FUNDS MINUS ESTIMATED COSTS	0	0	8,672,600	8,932,800		FY06 total shows additional funding r
204205206207		Note: USGS Salary adjustments were made to reflect cost Note: USGS special "pass-through" rate is applied on \$3r			•	l were redistrib	uted to corres	pond to the changes in project work.
208	(1)	CPI Adjustment						
209		Actual AMP funds received in FY-2003						
210		Increased by 3.0 CPI						
211		FY-2004 Budget Adjusted for CPI - rounded						
212	(2)	Overhead Calculations:			3,000,000			
213		USGS Overhead (Bureau Share)						
214		USGS Overhead (Cost Center Share)						
215		USGS Special Rate (Bureau Share)			58,000			
216		USGS Special Rate (Cost Center Share)			58,000			
217		Total Overhead:			611,000			
218					2,000			
219	(3)	Consists of funds for experimental flows, and tribal particip	ation					

	В	С	D	E	F	G	Н	I	
1	ID	Project Descriptions	Approved 2004 Budget	Actual 2004 costs	Approved 2005 Budget	Proposed 2006 Budget	Proposed 2007 Budget	Funding Source	
22	o ⁽⁴⁾	Consists of funds for experimental flows, temperature control device and tribal participation							
22	1 (5)	Funds applied to Bright Angel non-native fish contol							

	В	С	D	Е	F	G	Н
1	ID	Project Descriptions	Approved 2003 Budget	Actual 2003 costs	Approved 2004 Budget	Approved 2005 Budget	Funding Source
2	ADM	INISTRATION AND MANAGEMENT					
3		Reclamation Administration					
4	Α	Adaptive Management Work Group					
5	A.1	Personnel Costs			155,530	155,530	
6	A.2	AMWG Member Travel Reimbursement			13,390	13,390	
7	A.3	Reclamation Travel			15,540	15,540	
	A.4	Facilitation Contract			21,000	21,000	
9	A.5	Other			7,000	7,000	
10		Adaptive Management Work Group Subtotal	0	0	212,460	212,460	
11	В	Technical Work Group					
12		Personnel Costs			71,070	71,070	
	B.2	TWG Member Travel Reimbursement			15,450	,	
	B.3	Reclamation Travel			15,510	15,510	
	B.4	TWG Chair Reimbursement			21,630	21,630	
16	B.5	Other			2,000	2,000	
17		Technical Work Group Subtotal	0	0	125,660	125,660	
18		Other Reclamation Costs					
		Compliance Documents			26,780	· ·	
20	C.2	Contract Administration			25,750	25,750	
21		Other Reclamation Costs Subtotal	0	0	52,530	52,530	
22		Reclamation Administration Subtotal	0	0	390,650	390,650	
23							
24		USGS Administration					
25	D	Administrative and Management					
26	D.1	Administrative Operations ⁽¹⁾			638,600	638,600	
	D.2	Program Planning & Management			282,220	282,220	
28	D.3	AMWG, TWG			46,350	46,350	
29	D.4	Independent Reviews			222,000	225,000	
30	D.5	Public Outreach			50,000	50,000	

	В	С	D	Е	F	G	Н
1	ID	Project Descriptions	Approved 2003 Budget	Actual 2003 costs	Approved 2004 Budget	Approved 2005 Budget	Funding Source
31		Adminsistrative and Management Subtotal	0	0	1,239,170	1,242,170	
32	E	Technical Support Services					
33		Geographic Information System			160,000	310,000	
	E.2	Data Base Management System			128,000	250,000	
	E.3	Library			99,000	286,000	
		Survey Operations			126,000	126,000	
		Systems Administration			242,000	286,000	
	E.6	Airborne Remote Sensing - Core Monitoring			200,000		
		Web page and product development			100,000	122,000	
40	E.8	Logistics Operations					
41		Technical Support Services Subtotal	0	0	1,055,000	1,670,000	
42		USGS Administration Subtotal	0	0	2,294,170	2,912,170	
43							
44		Tribal Consultation					
45		Cooperative Agreements with Tribes					
46		Hopi Tribe			82,400	•	
		Hualapai Tribe			82,400	•	
		Navajo Nation			82,400		
		Pueblo of Zuni			82,400	·	
\vdash	F.5	Southern Paiute			82,400		
51		Tribal Consultation Subtotal	0	0	412,000	412,000	
52							
53	TOTA	AL ADMINISTRATION AND MANAGEMENT	0	0	3,096,820	3,714,820	
54							
55	PRO	GRAMMATIC AGREEMENT					
56	G.1	Reclamation Administration			51,500	51,500	
		Database and GIS			0	0	
58	G.3	NPS-GRCA Monitoring Costs	_		206,000	206,000	

	В	С	D	E	F	G	Н
1	ID	Project Descriptions	Approved 2003 Budget	Actual 2003 costs	Approved 2004 Budget	Approved 2005 Budget	Funding Source
59	G.4	NPS-GLCA Monitoring Costs			28,840	28,840	
		NN & GLCA Treatment Plan and Implementation			100,000	100,000	
		Whole Canyon Treatment Plan and Implementation			250,000	,	
		Zuni Conservation Program Mitigation			10,000	· · · · · · · · · · · · · · · · · · ·	
63	G.8	TCP GIS Documentation			150,000	150,000	
64	TOTA	AL PROGRAMMATIC AGREEMENT			796,340	796,340	
65							
66		PBACK CHUB PLAN ACTIONS					
67	H.1	Willow Beach Genetics Assessment			0	0	
68	H.2	Genetics Refugium			100,000	100,000	
69	H.3	HBC Genetics Evaluation			0		
70	H.4	Feasibility of HBC Augmentation			0		
71	H.5	HBC Translocation to Tributaries			50,000	25,000	
72	H.6	Temperature Control Device (TCD)			50,000	200,000	
73	H.7	Dam Operations Experiment			50,000	50,000	
74	H.8	Sediment, Turbidity Augmentation			0	0	
75	H.9	Scientific, Recreation Impact Assessment			30,000	0	
76	H.10	Bright Angel Non-native Fish Removal			167,000	167,000	
77	H.11	Tributary Non-native Fish Survey, Removal			0	0	
78	H.12	LCR Confluence NNF Mechanical Removal			0	0	
79	H.13	Fish Monitoring below Diamond Creek			25,000	25,000	
80	H.14	Invasive Species Management Plan			0	0	
81	H.15	Monitoring Parasites and Diseases			55,000	55,000	
		Development of a LCR Management Plan			100,000	0	
83	H.17	Concurrent LCR, Mainstem HBC Pop Est.			200,000	200,000	
84	H.188	AMWG Outreach Program			0	0	
85	H.19	Genetics Management Plan			0	0	
		LCR Spill Prevention Plan			0	0	

	В	С	D	E	F	G	Н
1	ID	Project Descriptions	Approved 2003 Budget	Actual 2003 costs	Approved 2004 Budget	Approved 2005 Budget	Funding Source
87	H.21	LCR Pollution Control Plan			0	0	
88	TOTA	AL HUMPBACK CHUB PLAN ACTIONS	0	0	827,000	822,000	
89							
90	COR	E MONITORING PROGRAM					
91	I	Terrestrial Ecosystem Activities					
92	I.1	Terrestrial Ecosystem - Core Monitoring			170,000	425,000	
93	I.2	Hopi Tribe Ecosystem Monitoring/Outreach			15,000	15,000	
94		Hualapai Tribe Ecosystem Monitoring/Outreach			15,000	15,000	
95		Navajo Nation Ecosystem Monitoring/Outreach			15,000		
96		Pueblo of Zuni Ecosystem Monitoring/Outreach			15,000	,	
97		Southern Paiute Ecosystem Monitoring/Outreach			15,000	•	
98		Terr. Eco. Mon. (Tribal Involvement)			80,000	· · · · · · · · · · · · · · · · · · ·	
99	1.8	Kanab Ambersnail - Core Monitoring			79,000	113,000	
100		Terrestrial Ecosystem Activities Subtotal	0	0	404,000	668,000	
101	J	Aquatic Ecosystem Activities					
102	J.1	Aquatic Foodbase Core Monitoring			315,000		
103	J.2	Status & Trends of DS Fish - Core Monitoring			820,000	870,000	
104	J.3	Status & Trends LF Trout - Core Monitoring			111,000	165,000	
105		IQWP - DS - Core Monitoring			200,000	223,000	
106	J.5	IQWP - Lake Powell			210,000	210,000	
107		Aquatic Ecosystem Activities Subtotal	0	0	1,656,000	1,783,000	
108		Integrated Activities		,			
109		Fine-Sediment Storage - Core Monitoring			250,000	480,000	
110		Streamflow & SS Transport - Core Monitoring			300,000	700,000	
111	K.3	Coarse-Grained Inputs - Core Monitoring			0	110,000	
112		Integrated Activities Subtotal	0	0	550,000	1,290,000	
113	L	Sociocultural & Other					
114	L.1	Evaluation & Plan for Cultural - Core Monitoring			40,000	480,000	

	В	С	D	E	F	G	Н
1	ID	Project Descriptions	Approved 2003 Budget	Actual 2003 costs	Approved 2004 Budget	Approved 2005 Budget	Funding Source
115	L.2	Implementation of Recreation PEP reccs.			40,000	155,000	
116	L.3	Implementation of Socioeconomic PEP reccs.			40,000	130,000	
117		Sociocultural & Other Subtotal			120,000	765,000	
118	TOTA	AL CORE MONITORING	0	0	2,730,000	4,506,000	
119							
120	RESE	EARCH AND EXPERIMENTAL ACTIONS					
121	М	Terrestrial Ecosystem Activities					
	M.1	New Research in Terrestrial Ecosystems			0	0	
		Mapping Holocene Deposits			0	0	
		Habitat Map & Inventory			0	60,000	
		Cultural Data Base Plan			0	0	
		Kanab Ambersnail Taxonomy (AMP)			25,000		
		Kanab Ambersnail Taxonomy (USGS Appro)			88,000		
128	M.7	Exp - Kanab Ambersnail Population			10,000	10,000	
129		Terrestrial Ecosystem Activities Subtotal	0	0	123,000	70,000	
130		Aquatic Ecosystem Activities					
		Native & Non-Native Species			0		
		Captive Breeding Program			0	0	
		Population Genetics - HBC			0	0	
	N.4	Exp - Primary Productivity, Carbon Flux			0	65,000	
135	N.5	Exp - Temperatures and Habitat Use Monitoring			150,000	150,000	
136	N.6	Exp - Foodbase Impacts of EHF Flows (high-flow impacts)			0	50,000	
137	N.7	Exp - Monitoring of Rainbow Trout Adult			0	0	
138	N.8	Exp - Distribution of Spawning Redds			0	140,000	
		Exp - Determination of the Suppression Mechanism			0	N/A	
		Exp - Food Base Impacts of Fluctuating Flows			0	0	
		Exp - Mechanical Removal of Non-native Fish			586.000	750.000	
		•				•	
		Exp - Mechanical Removal of Non-native Fish Exp - Rainbow Trout Diet Analysis			586,000 0	750,000 50,000	

	В	С	D	E	F	G	Н
1	ID	Project Descriptions	Approved 2003 Budget	Actual 2003 costs	Approved 2004 Budget	Approved 2005 Budget	Funding Source
143	N.13	Exp - Predation of Native Fishes (Humpback Chub)			0	N/A	
144		Aquatic Ecosystem Activities Subtotal	0	0	736,000	1,205,000	
145	0	Integrated Activities					
		Sediment Transport Modeling			0	0	
		Control Network			150,000	150,000	
		Channel Mapping			0	519,000	
		Advanced Modeling of Coarse Grained			0	0	
-		Recreation Effects			0	0	
-		Exp - Mass Balance of Fine Sediment			0	200,000	
152	O.7	Exp - FIST			750,000	500,000	
153	O.8	Exp - Modeling EHF Sandbar Response			0	65,000	
154	O.9	Exp - Coarse Sediment and Conceptual Modeling			0	50,000	
155	O.10	Exp - Sediment Deposition in Arroyos			0	0	
156		Integrated Activities Subtotal	0	0	900,000	1,484,000	
157	Р	Sociocultural & Other					
158		Unsolicited Proposals			0	50,000	
159		AMWG, TWG Requests			0	50,000	
		Tribal Outreach Workshop			0	0	
161		Cultural Synthesis & Data Report			0	0	
		Cultural Affiliation Study			0	0	
		APE Study			0	0	
-		1st Yr Geomorph. Model, Process Study			135,000	150,000	
-		Comprehensive Inventory of Campsites			0	100,000	
-		Exp - Impacts to Concessionaires, Anglers			0	20,000	
-		Exp - Changes in Camping Beaches			0	0	
-		Exp - Administrative Support			5,000	10,000	
-		Exp - Technical Support - Computer			21,000	25,000	
170	P.13	Exp - Technical Support - Survey Equipment			32,000	35,000	
171		Sociocultural & Other Subtotal	0	0	193,000	500,000	

	В	С	D	E	F	G	Н		
1	ID	Project Descriptions	Approved 2003 Budget	Actual 2003 costs	Approved 2004 Budget	Approved 2005 Budget	Funding Source		
172	TOTA	AL RESEARCH AND EXPERIMENTAL ACTIONS	0	0	1,952,000	3,259,000			
173									
174	MANAGEMENT ACTIONS								
175	Q	Terrestrial Ecosystem Activities							
176	R	Aquatic Ecosystem Activities							
177	S	Integrated Activities							
178	T	Sociocultural & Other							
179	TOTA	AL MANAGEMENT ACTIONS	0	0	0	0			
180									
181	USGS	S INDIRECT COSTS							
182		USGS Indirect (Bureau Share 11%) (2)			363,000	363,000			
183		USGS Indirect (Cost Center Share 4%)			132,000	132,000			
184		USGS Indirect (Bur. Special Rate 3%)			58,000				
185		USGS Indirect (Special CC Rate 3%)			58,000	58,000			
186		USGS Indirect on Appropriations			70,450	70,450			
187	TOTA	AL USGS INDIRECT COSTS	0	0	681,450	681,450			
188									
189	TOTA	AL ADAPTIVE MANAGEMENT PROGRAM COSTS	0	0	10,083,610	13,779,610			
190									
191	AVAI	LABLE FUNDS							
192		USBR & USGS Power Revenues under cap			8,932,800				
193		Carry Over			0				
194		USGS Appropriations (3)			500,000				
195		USBR Appropriations (4)			320,000				
196		NPS Funds (5)			167,000				
197		NPS Appropriations (3)			95,000				

В	С	D	Е	F	G	Н	
1 ID	Project Descriptions	Approved 2003 Budget	Actual 2003 costs	Approved 2004 Budget	Approved 2005 Budget	Funding Source	
198	FWS Appropriations (3)			95,000			
199	BIA Appropriations (3)			95,000			
200	BOR Operations & Maintenance (IQWP)			210,000			
201 TOT	AL AVAILABLE FUNDS	0	0	10,414,800			
	AL REQUESTED APPROPRIATIONS/OTHER FUNDS	0	0	1,482,000	0		
203 AVA	ILABLE FUNDS MINUS ESTIMATED COSTS	0	0	8,932,800			
205 206 207 208 210 211 212 213 214 215 216 217 218 219 (3) 220 (4) 221 (5)	Note: USGS Salary adjustments were made to reflect costs from the most recent salary tables and were redistributed to correspond to the changes in Note: USGS special "pass-through" rate is applied on \$3m for contracts and agreements. CPI Adjustment Actual AMP funds received in FY-2003 Increased by 3.0 CPI FY-2004 Budget Adjusted for CPI - rounded Overhead Calculations: USGS Overhead (Bureau Share) USGS Overhead (Cost Center Share) USGS Special Rate (Bureau Share) USGS Special Rate (Bureau Share) Total Overhead: Special Rate (Cost Center Share) Total Overhead: Consists of funds for experimental flows, and tribal participation						